

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/821,226	HERGOTT, MICHAEL A.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Cynthia Britt	2133	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/2/04.
2. ☒ The allowed claim(s) is/are 1-7, 9-11, 13,14, and 16-23 (renumbered 1-20).
3. ☒ The drawings filed on 02 August 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

  
 ALBERT SECORD  
 SUPERVISORY PATENT EXAMINER  
 TECHNOLOGY CENTER 2100

**Allowance**

Claims 1-7, 9-11, 13,14, and 16-23 are allowed.

**REASONS FOR ALLOWANCE**

The following is an examiner's statement of reasons for allowance:

The present invention pertains to a method and/or architecture for boundary scan testing generally and, more particularly, to testing input/output pad circuit functionality.

The claimed invention (claim 1 as representative – the broader independent claim) recites features such as "a first pad circuit configured to transfer a first data signal in response to a pad control signal; a second pad circuit configured to generate a second data signal from an input signal in response to said pad control signal; a core logic configured to (i) exchange said first data signal with said first pad circuit, (ii) receive said second data signal and (iii) generate a control signal; a first cell configured to (i) transfer said first data signal between said first pad circuit and said core logic and (ii) swap said first data signal and a test signal; a second cell configured to (i) transfer said second data signal from said second pad circuit to said core logic and (ii) swap said second data signal and said test signal; and a test circuit configured to (i) exchange said test data signal with said first cell and said second cell, (ii) store a test control signal and (iii) multiplex said test control signal and said control signal' to generate said pad control signal.

The prior arts of record (Jin, U.S. Patent No 6,125,464 is an example of such prior arts) teach the exchange of the test data signal in the cell by presenting the data

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signal to the cell, swapping the data and test data signal by overwriting the data signal with the test signal, and outputting the signal which is then receivable by external pad circuitry and that it is well known to make use of storage registers for storage of test control information in scan test architecture. However, the prior arts fail to teach alone or in combination, a first pad circuit configured to transfer a first data signal response to a pad control signal and a second pad circuit configured to generate a second data signal from an input signal in response to the pad control signal as presently claimed. As such, modification of the prior art of record can only be motivated by hindsight reasoning, or by changing the intended use and function of the prior art themselves. Therefore, it is not clear that one of ordinary skill in the art at the time of the invention would have made the necessary modifications to the prior art of record to encompass the limitations set forth in the present application. Moreover, none of the prior arts of record, taken either alone or in combination, anticipate nor render obvious the claimed inventions. Hence, claims 1-7, 9-11, 13,14, and 16-23 are allowable over the prior arts of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Britt whose telephone number is 703-308-2391. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 703-305-9595. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cynthia Britt  
Examiner  
Art Unit 2133

  
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